



# CDFA Federal Financing Webinar Series: Resources for Resilient Infrastructure from the DOE

**Thank you**

for joining the conversation today. Send us your questions and comments!

## Welcome

The Broadcast will begin at 1:00 PM (Eastern)

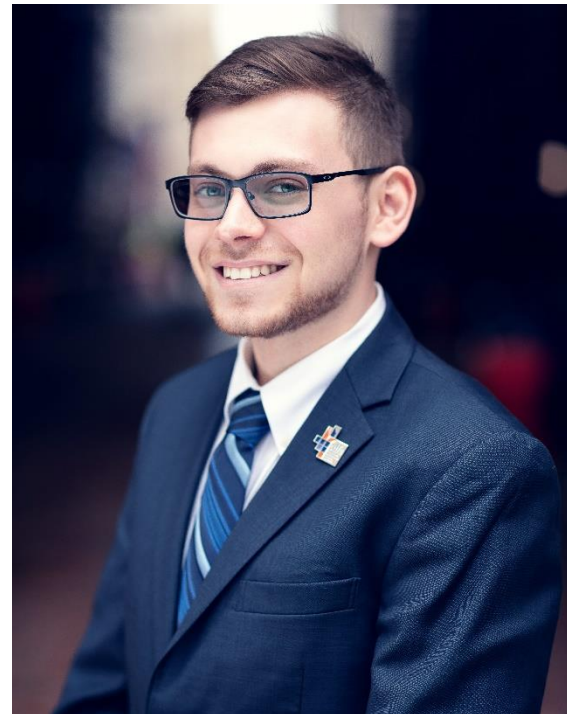




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## Moderator

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### **Malcolm Guy**

Coordinator, Government & External Affairs  
Council of Development Finance Agencies

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## Legal Disclaimer

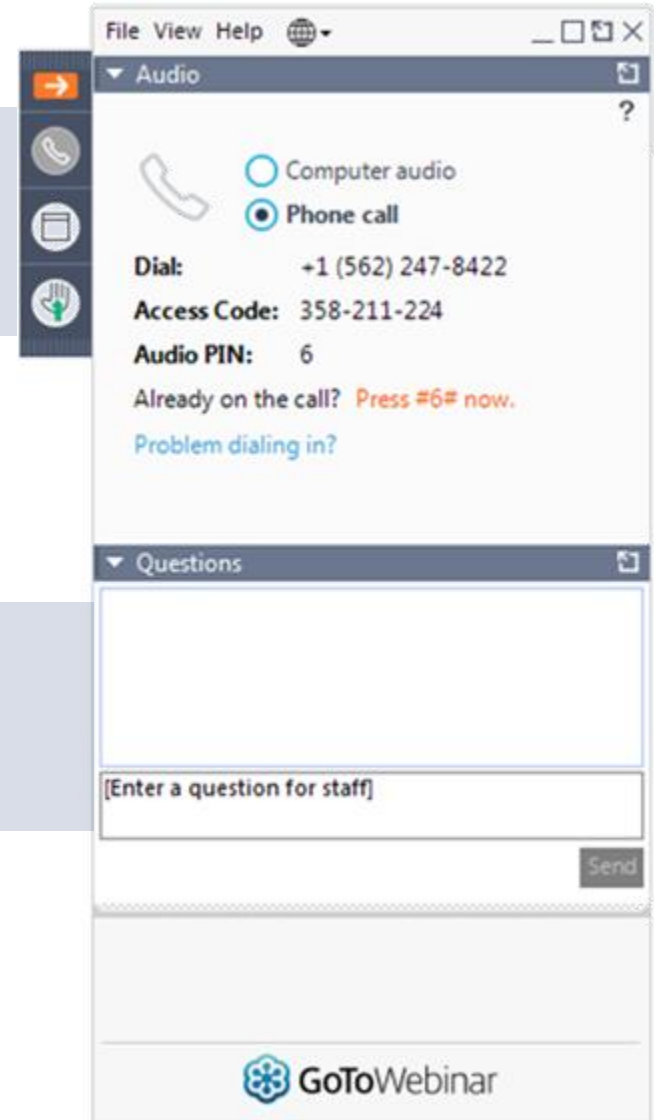
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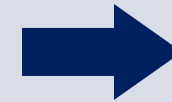


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Using your telephone will give you better audio quality.



Submit your questions to the panelists here.



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# CDFA Federal Financing Webinar Series: Resources for Resilient Infrastructure from the DOE

## Panelists



### **Robert C. Marcum**

Chief Operating Officer  
Loan Programs Office  
U.S. Department of Energy



### **Lizana Pierce**

Deployment Supervisor  
Office of Indian Energy Policy and  
Programs  
U.S. Department of Energy



### **Kevin Daehnke**

President  
Center for Strategic Policy Innovation

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# Title 17

## Loan Guarantee Program

---

### Financing Energy Innovation in the U.S.

**Council of Development  
Finance Agencies**

Bob Marcum,  
Chief Operating Officer  
September 11, 2020

# Agenda

## **Intro to LPO**

- LPO Programs • LPO Financing • LPO Portfolio

## **Title 17 Overview**

- Innovative Technology:
  - Advanced Fossil Energy
  - Advanced Nuclear Energy
  - Renewable Energy & Efficient Energy
- Flexible Financing
- Loan Transaction Process

# Financing American Energy Infrastructure

## The Department of Energy's Loan Programs Office (LPO)

was established for borrowers seeking access to debt financing for energy infrastructure projects.

## With over \$40 billion in available debt capital

, LPO programs finance high-impact projects and first-time commercializations, partnering with borrowers to customize deal structures.



### Access to Debt Capital

that private lenders cannot or will not provide.



### Flexible Financing

customized for the specific needs of individual borrowers.



### A Committed Partner

offering expertise to borrowers for the lifetime of the project.

# \$40 Billion in Available Debt Capital

LPO offers corporate and project financing through three distinct loan programs.

**TITLE 17**  
Innovative Energy  
Loan Guarantees



**Advanced Fossil Energy**  
\$8.5 Billion Available



**Advanced Nuclear Energy**  
\$10.9 Billion Available



**Renewable Energy & Efficient Energy**  
Up to \$4.5 Billion Available



**ATVM**  
Direct Loans



**Advanced Technology  
Vehicles Manufacturing**  
\$17.7 Billion Available



**TELGP**  
Partial Loan Guarantees



**Tribal Energy Projects**  
Up to \$2 Billion Available





# Over \$35 Billion Financed

LPO financed-projects have catalyzed new energy technologies and supported thousands of jobs.

## Advanced Nuclear Energy

\$12 Billion

First AP1000 reactor in the U.S. (**Vogtle**)

## Advanced Fossil Energy

\$2 Billion

CO<sub>2</sub> capture and sequestration conditional commitment. (**Lake Charles Methanol**)

## Wind Energy

\$1.7 Billion

Four onshore farms, including one of the world's largest. (**Shepherds Flat**)

## Transmission

\$343 Million

Advanced transmission lines for improved grid reliability. (**One Nevada Line**)

## Advanced Vehicles Manufacturing

\$7.8 Billion

Accelerated domestic electric vehicles manufacturing. (**Nissan, Tesla**)

## Concentrating Solar Power

\$5.8 Billion

Five Concentrating Solar Power plants Utilizing diverse technologies.

## Geothermal Energy

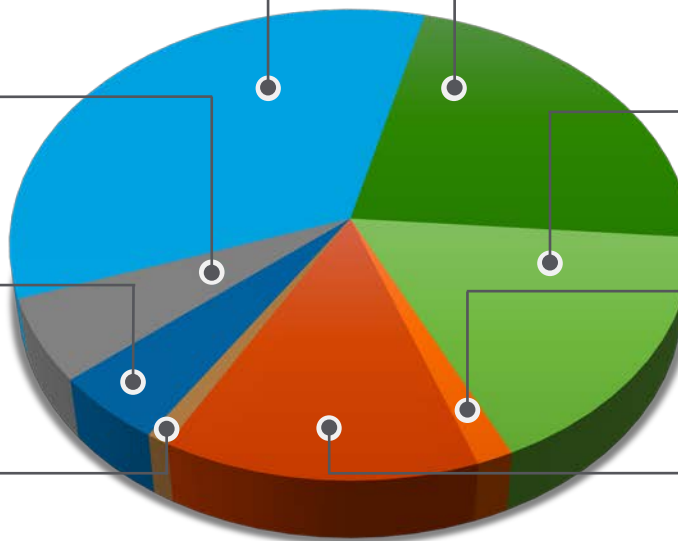
\$546 Million

State-of-the-art thermal extraction, revitalizing the sector.

## Photovoltaic Solar

\$4.7 Billion

First five utility-scale PV solar projects larger than 100 MW in the U.S.





# Advanced Fossil Energy

\$8.5 Billion in Loan Guarantees Available



LPO helps bring advanced fossil energy projects to commercial scale through its Title 17 Innovative Energy Loan Guarantee Program.

## Financing

**LPO provides access to debt capital** for energy projects using innovative technology.

## Eligibility

**LPO can consider advanced fossil energy projects that:**

1. Use innovative technology.
2. Reduce, avoid, or sequester greenhouse gas emissions or air pollutants.
3. Are located in the U.S.
4. Provide reasonable prospect of repayment.

## Technologies

**Technology areas of interest include, but are not limited to:**

- **Advanced Resource Development**
- **Carbon Capture**
- **Efficiency Improvements**
- **Low-Carbon Power Systems**



# Advanced Nuclear Energy

\$10.9 Billion in Loan Guarantees Available



LPO helps bring advanced nuclear energy projects to commercial scale through its Title 17 Innovative Energy Loan Guarantee Program.

## Financing

**LPO provides access to debt capital** for energy projects using innovative technology.

## Eligibility

**LPO can consider advanced nuclear energy projects that:**

1. Use innovative technology.
2. Reduce, avoid, or sequester greenhouse gas emissions.
3. Are located in the U.S.
4. Provide reasonable prospect of repayment.

## Technologies

**Technology areas of interest include, but are not limited to:**

- **Advanced Nuclear Reactors**
- **Front-End Nuclear**
- **Small Modular Reactors (SMRs)**
- **Upgrades & Upgrades at Existing Facilities**



# Renewable Energy & Efficient Energy



Up to \$4.5 Billion in Loan Guarantees Available

LPO helps bring renewable & efficient energy projects to commercial scale through its Title 17 Innovative Energy Loan Guarantee Program.

## Financing

**LPO provides access to debt capital** for energy projects using innovative technology.

## Eligibility

**LPO can consider renewable & efficient energy projects that:**

1. Use innovative technology.
2. Reduce, avoid, or sequester greenhouse gas emissions.
3. Are located in the U.S.
4. Provide reasonable prospect of repayment.

## Technologies

**Technology areas of interest include, but are not limited to:**

- Advanced Grid Integration & Storage
- Alternative Fuel Vehicle Infrastructure
- Distributed Energy Projects
- Efficiency Improvements
- Enhancement of Existing Facilities
- Offshore Wind & Related Infrastructure
- Waste-To-Energy

# Offering Flexible Financing Solutions

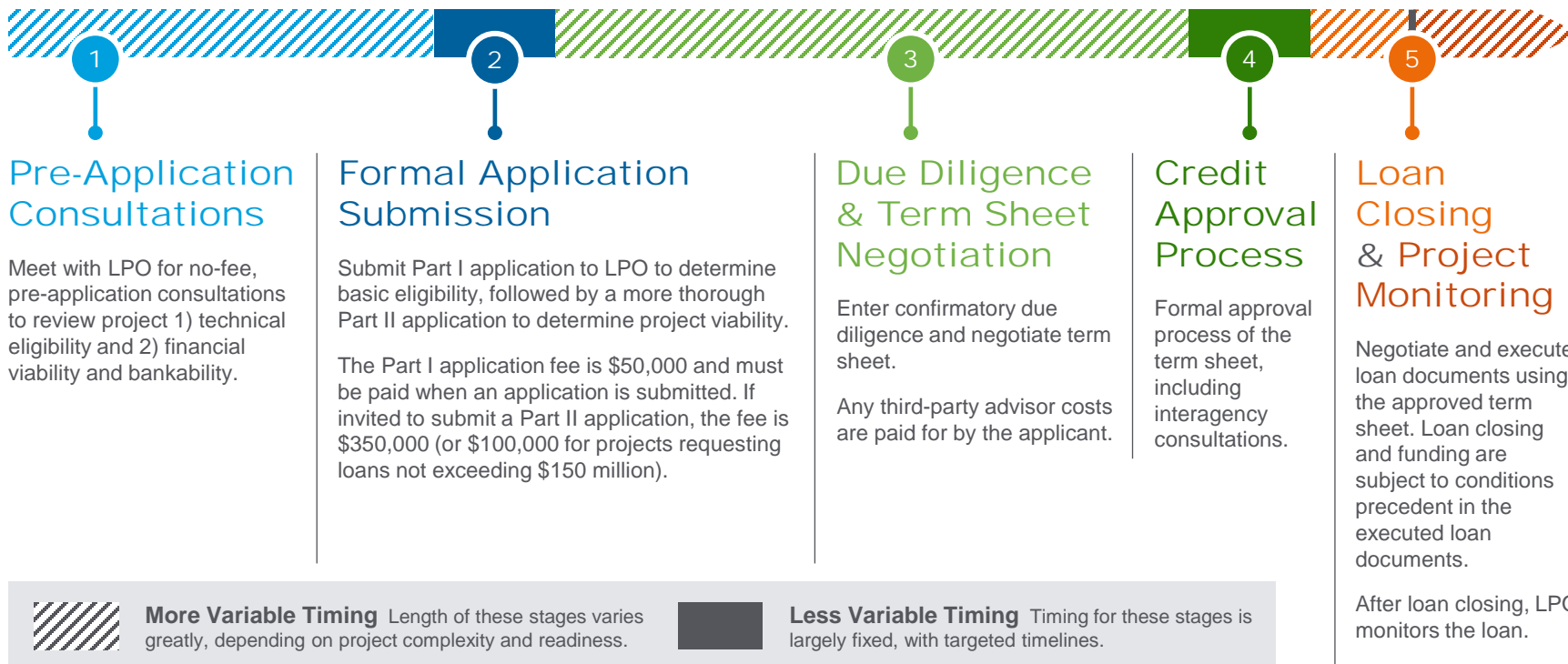
LPO can provide affordable, custom financing to meet the specific needs of individual borrowers.

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- ✓ **Loan Type** | Direct loan from U.S. Treasury's Federal Financing Bank (FFB) backed by 100% DOE guarantee or DOE partial guarantee of commercial loans.
- ✓ **Affordable Debt** | Senior secured, fixed or floating rate debt.
- ✓ **Competitive Pricing** | Equal to U.S. Treasury-equivalent yield curve plus a credit risk premium, typically ranging from 37.5 to 200 basis points.
- ✓ **Long Tenor** | Tenor of up to 30 years or 90% of projected useful life of assets financed.
- ✓ **Flexible Deal Structures** | Structures may include project finance, structured corporate, corporate or warehousing lines.
- ✓ **DOE Role** | Can serve as sole lender or as a co-lender.
- ✓ **Debt Amount Determination** | Debt amount based on credit profile, business plan, market risk, technology, cash flows, project risk allocation and other relevant factors, up to 80% of total project costs.
- ✓ **Viability Standard** | Emphasis placed on certainty of cash flow to the project during initial financial viability review and during subsequent due diligence.

# Title 17 Loan Transaction Process

LPO engages early with applicants and remains a partner throughout the lifetime of the loan.







# LPO

Loan Programs Office

## Let's Talk About Your Project

Contact LPO to see what financing options may be available for your project:



Call or write to schedule a no-fee, pre-application consultation: **202-586-8336** | **[lpo@hq.doe.gov](mailto:lpo@hq.doe.gov)**



Learn more about LPO and all of its lending programs at: **[energy.gov/LPO](https://energy.gov/LPO)**

**Bob Marcum**

Chief Operating Officer



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## Panelist

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### **Lizana Pierce**

Deployment Supervisor  
Office of Indian Energy Policy and Programs  
U.S. Department of Energy

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DOE OFFICE OF INDIAN ENERGY

# DOE Indian Energy Program Overview: Tribal Energy Development and Deployment



U.S. DEPARTMENT OF  
**ENERGY**

Office of  
Indian Energy

September 11, 2020

[IndianEnergy@hq.doe.gov](mailto:IndianEnergy@hq.doe.gov)

[www.energy.gov/indianenergy](http://www.energy.gov/indianenergy)

# Department of Energy

## Mission

Ensure America's security and prosperity by addressing its energy, environmental and nuclear challenges through transformative science and technology solutions.

- Energy
- Science and Innovation
- Nuclear Safety and Security
- Management and Operational Excellence

### Energy

Catalyze the timely, material, and efficient transformation of the nation's energy system and secure U.S. leadership in energy technologies.

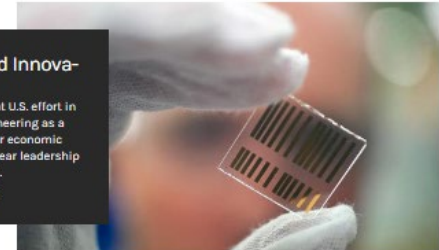
[VIEW MORE](#)



### Science and Innovation

Maintain a vibrant U.S. effort in science and engineering as a cornerstone of our economic prosperity with clear leadership in strategic areas.

[VIEW MORE](#)



### Nuclear Safety and Security

Enhance nuclear security through defense, nonproliferation, and environmental efforts.

[VIEW MORE](#)



### Management and Operational Excellence

Establish an operational and adaptable framework that combines the best wisdom of all Department stakeholders to maximize mission success.

[VIEW MORE](#)



# Department of Energy



## Program Offices

- Cybersecurity, Energy Security, and Emergency Response
- Advanced Research Projects Agency – Energy
- Energy Efficiency and Renewable Energy
- **Indian Energy Policy and Programs**
- Environmental Management
- Office of Electricity
- Loan Program Office
- Office of Fossil Energy
- Legacy Management
- Nuclear Energy
- Office of Science





# Office of Indian Energy

## Office of Indian Energy Policy and Programs

Funds and implements activities that assist American Indian Tribes and Alaska Native villages with energy development, capacity building, energy cost reduction, and electrification of Indian lands and homes.

[VIEW MORE](#)



Authorized under the Energy Policy Act (EPAct) of 2005 and charged by Congress to:

- (1) **promote Indian tribal energy development, efficiency, and use;**
- (2) **reduce or stabilize energy costs;**
- (3) **enhance and strengthen Indian tribal energy and economic infrastructure** relating to natural resource development and electrification; and
- (4) **bring electrical power and service to Indian land and the homes** of tribal members located on Indian lands or acquired, constructed, or improved (in whole or in part) with Federal funds.”





# Program Mission

To maximize the development and deployment of strategic energy solutions that benefit tribal communities by providing American Indians and Alaska Natives with the knowledge, skills, and resources needed to implement successful strategic energy solutions.



Clockwise from top right: **Seneca Nation's** (NY) 1.5 MW wind turbine, **Fort Yukon's** (AK) combined heat and powerhouse, **Coeur d'Alene Tribe's** (ID) Benewah Market energy efficiency project, **Sokaogon Chippewa Community** (WI) Housing Project, and **Chippewa Cree Tribe's** (MT) Residential Solar.

The **Indian Country Energy and Infrastructure Working Group (ICEIWG)** works collaboratively with the DOE Office of Indian Energy to assist in surveys, analysis, and recommendations related to program and policy initiatives that fulfill DOE's statutory authorizations and requirements.



May 2018 ICEIWG meeting at Sandia National Laboratories

# Deployment Program



## Financial Assistance

We facilitate access to capital for energy project development through financial assistance (competitively awarded grants), Tribal Energy Loan Guarantee Program and innovative financing strategies.



## Technical Assistance

We provide federally recognized Indian tribes, including Alaska Native villages, regional and village corporations, tribal energy resource development organizations, and other tribal groups and communities, with technical assistance to advance tribal energy and infrastructure projects.

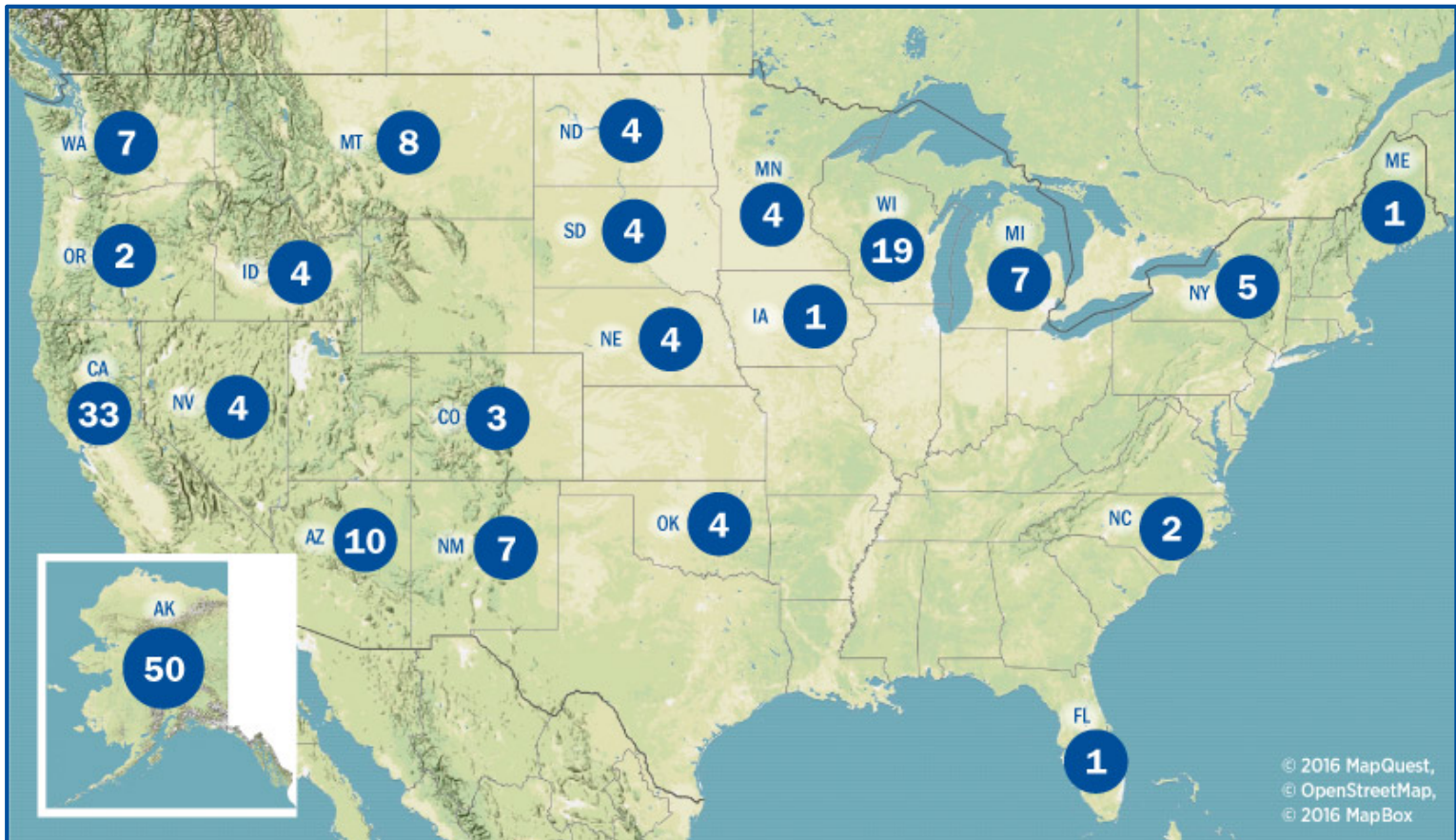


## Education and Capacity Building

Thorough regional workshops, webinars, and college student internships, we support tribal efforts to build internal capacity to develop energy projects and navigate energy markets.



# Invested nearly \$85 million in more than 180 tribal energy projects valued at over \$180 million (2010-2019)



# Tribal Energy Investment Transparency

## Online Tribal Energy Projects Database

- Project Map (Interactive Map)
- Project Database (Sortable)
- Project Successes
- Project Summaries
  - Annual Presentations
  - Final Reports

Show 10 entries

Project	Tribes	State	Year
Agua Caliente Band of Cahuilla Indians - 2010 Project	Agua Caliente Band of Cahuilla Indians	California	2010
Agua Caliente Band of Cahuilla Indians - 2012 Project	Agua Caliente Band of Cahuilla Indians	California	2012
Agua Caliente Band of Cahuilla Indians-2015 Project	Agua Caliente Band of Cahuilla Indians	California	2015
Ahtna Intertribal Resource Commission – 2016 Project	Ahtna Intertribal Resource Commission	Alaska	2016
Akiachak Native Community – 2017 Project	Akiachak Native Community	Alaska	2017
Akwesasne Housing Authority on behalf of St. Regis Mohawk Tribe - 2016 Project	Akwesasne Housing Authority	New York	2016
Alaska Native Tribal Health Consortium (ANTHC) –	Alaska Native Tribal Health Consortium (ANTHC)	Alaska	2016

### Akwesasne Housing Authority on behalf of St. Regis Mohawk Tribe – 2016 Project

Office of Indian Energy Policy and Programs

#### Summary

Initiative 1: Go Solar

Under the Community-Scale Akwesasne Housing Authority (AHA) Go Solar Initiative, the St. Regis Mohawk AHA will install approximately 614.74 kilowatts (kW) of solar photovoltaic (PV) systems in Franklin County, New York, to serve 159 housing-related buildings on the Tribe's reservation. The ground-mounted PV systems will be installed on a 25-acre parcel owned by the Tribe, and the generated electrical power will be utilized under National Grid's net metering programs to offset energy use and costs for AHA's buildings and tribal members' residences.

This project will serve 5% of the total tribal community's residential energy load and 4% of the total electrical energy usage including governmental and commercial buildings. When considering all fuels used on the reservation, the project provides a 3.35% reduction of total energy load on the reservation.

Initiative 2: Net Zero

The Akwesasne Housing Authority will create three "net-zero" buildings by installing energy efficiency measures and 161.5 kW of solar PV, reducing annual energy costs by about \$36,200. Two of the buildings are part of the Sunrise Green Development project, a tribal affordable housing development that will provide on-site services to tribal veterans, elders, and their families; the third is an existing building that houses the Akwesasne Boys & Girls Club.

#### Project Overview

**Tribe/Awardee**  
Akwesasne Housing Authority

**Location**  
Hogansburg, NY

**Project Title**  
Community-Scale AHA Go Solar Initiative and Net Zero Initiative

**Type of Application**  
Deployment

**DOE Grant Number**  
DE-EE0000038

**Project Amounts**  
DOE: \$1,500,000  
Awardee: \$1,837,831  
Total: \$3,337,831

**Project Status**  
See project status

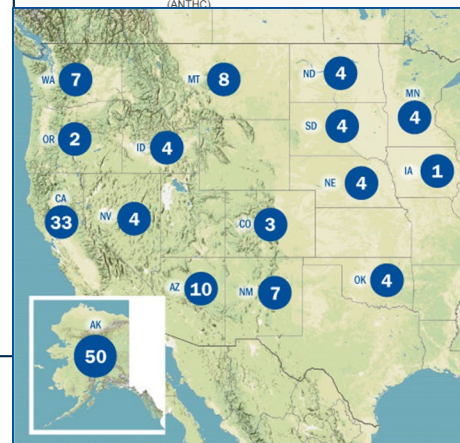
**Project Period of Performance**  
Start: July 2016  
End: June 2019

#### Project Description

#### Background

Saint Regis Mohawk Tribe is a sovereign, federally acknowledged Indian tribe. The Tribal Council created the AHA by ordinance in July 1984 and has designated the AHA as its agency for purposes of administering the Tribe's Indian Housing Block Grant under the Native American Housing and Self-Determination Act of 1996. The St. Regis Mohawk Reservation is also known by its Mohawk name Akwesasne. U.S. census data indicate that the total population is 2,919, and U.S. Post Office data confirm that there are 1,277 households on the reservation.

St. Regis Mohawk Tribe and AHA have worked together to develop a 10-Year Tribal Strategic Energy



#### PROJECT SUCCESSES

**Can Solar Work in Alaska? Hughes Village Says Yes.**  
The Native Village of Hughes just installed the bones of a 120-kilowatt solar photovoltaic system that will cut diesel use and costs.  
FEBRUARY 6, 2019

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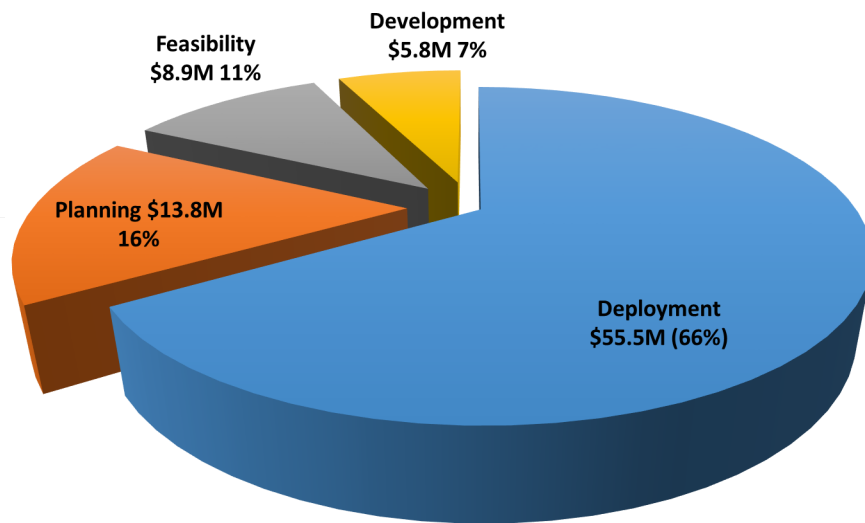
**The Confederated Tribes of the Umatilla Indian Reservation Trap the Sun to Offset Energy Costs**  
The Tribe turned a strip of its land in Oregon into nearly \$12,000 in annual energy cost savings.  
AUGUST 27, 2018

**Pala Band of Mission Indians Sees Savings from Solar-Powered Fire Station, Looks Ahead to Continued Energy Development**  
The Tribe has turned to renewable energy as a means of lowering energy costs and gaining independence from the grid.  
JUNE 8, 2018

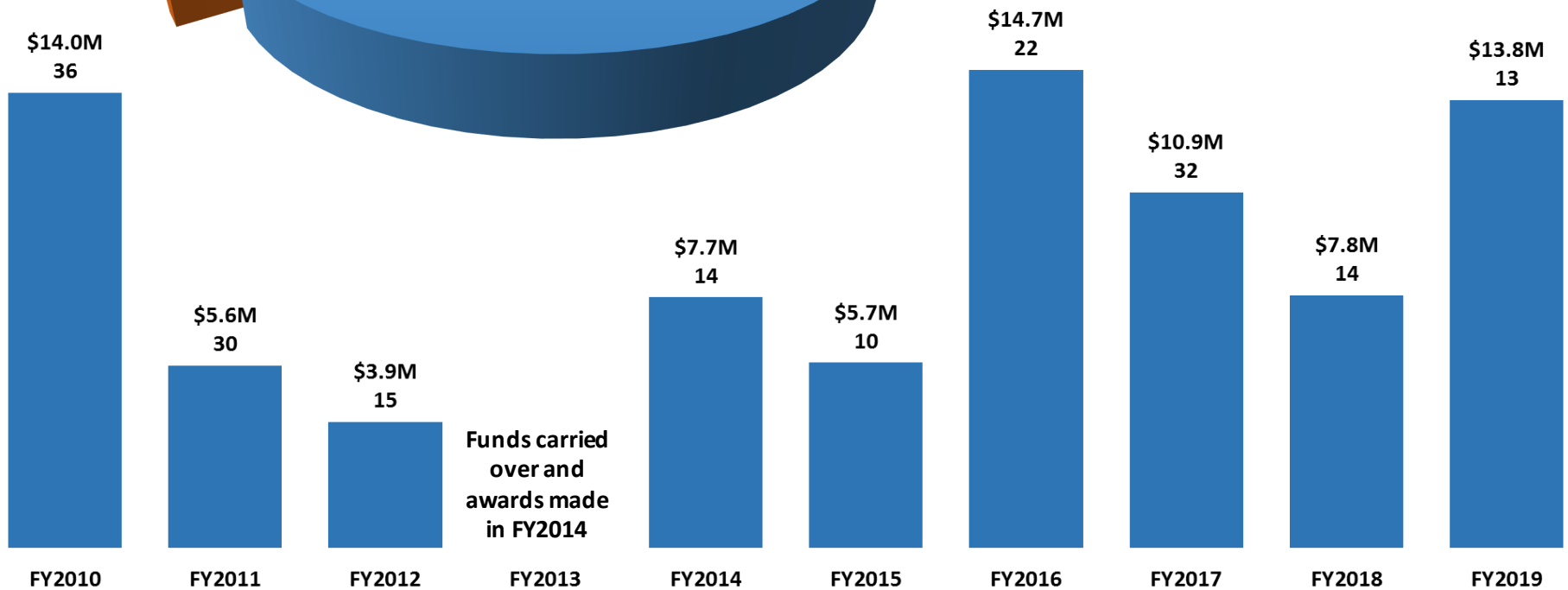
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**Community Solar to Meet 100% of Energy Costs for New Mexico Tribe**  
A DOE co-funded 1-megawatt community solar array will offset the cost of the entire energy load of Picuris Pueblo.  
JANUARY 11, 2018

# Financial Assistance Investments (2010-2019)

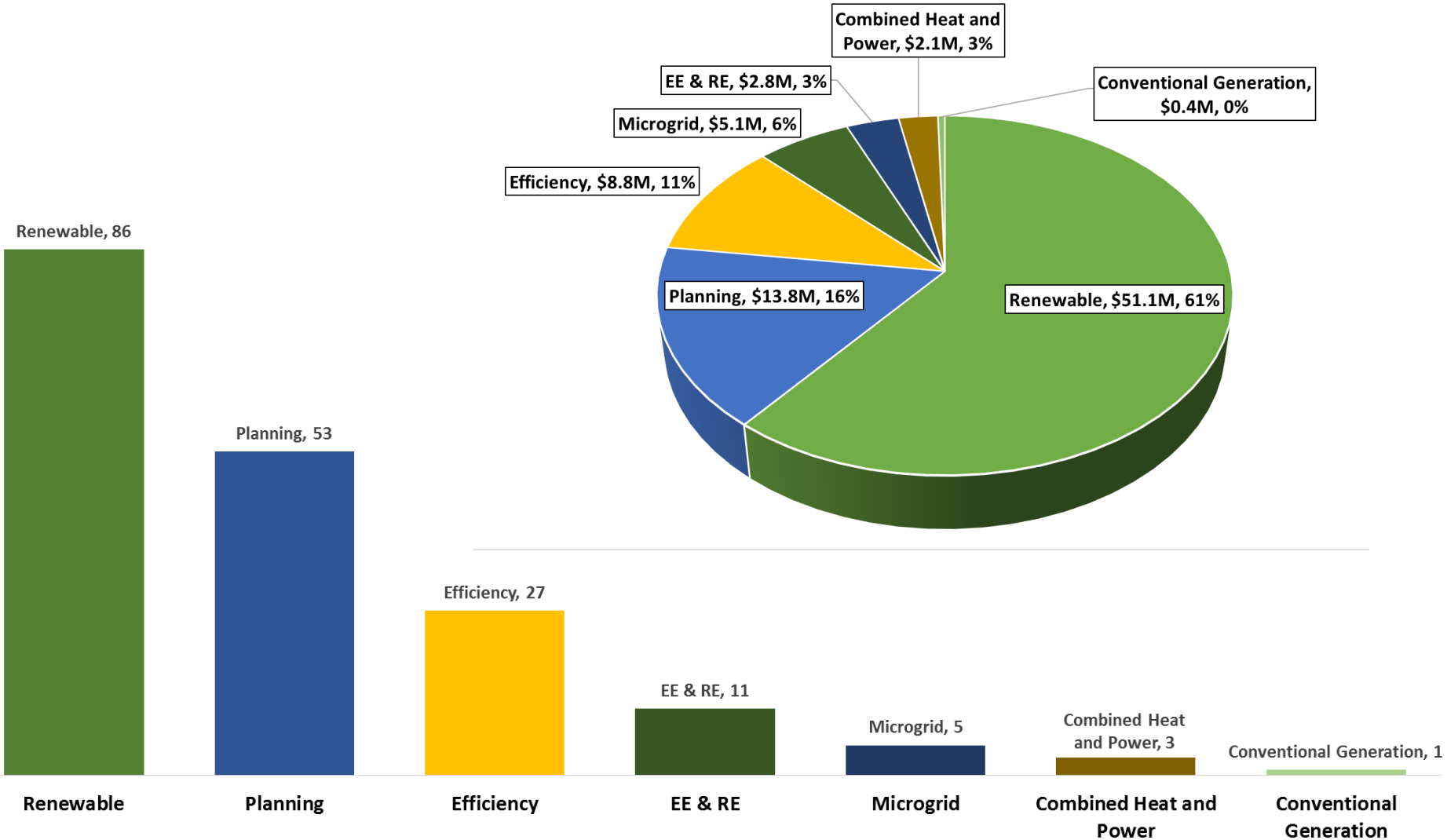


**Nearly \$85 million in more than 180 tribal energy projects (average of ~\$8.4M per year)**



\* FY2018 selections awarded and started in FY2019

# Investments by Technology (2010-2019)





# Tribal Energy Successes



Clockwise from top right: Seneca Nation's 1.5 MW turbine (2017) (NY); Rosebud Sioux (SD) solar system on low-income home (2016); Chaninik Wind Group (AK) thermal stove install (2013); Southern Ute (CO) 1.3 MW Oxford Solar Project (2017).; Huslia Tribal Council's (AK) Biomass Project (2018); and Nunamiut people of Anaktuvuk Pass (AK) energy efficiency measures (2013).



# Financial Assistance

## Competitive Process (2010-2019)

- **16 Funding Opportunity Announcements (FOAs) issued**  
(Includes FOA's issued in 2009 for award in 2010)
- **Accepted a total of 610 applications, valued at \$625 million**
- **Funded 95% of all meritorious applications** (Total of 186 out of 196)
- **Funded ~30% of all applications received** (186 out of 610)  
**DOE average is ~5 to 10%**

*All Funds Awarded through a Competitive Process*

The Office of Indian Energy has primarily fulfilled the requirements under 42 U.S.C. § 7144e by providing cost shared federal funding to Indian tribes and tribal entities through competitive financial assistance awards.

# Funding Resources

- ## Energy Development Assistance Tool

Information for Tribes on federal grant, loan, and technical assistance programs available from more than 10 federal agencies to support energy development and deployment in Indian Country and Alaska Native villages

- ## Current Funding Opportunities

List of open tribal energy related funding opportunities from federal agencies and other sources

- ## Ongoing Opportunities

Links to ongoing technical assistance, grant, loan and loan guarantee programs

<http://energy.gov/indianenergy>

Office of INDIAN ENERGY POLICY AND PROGRAMS About Us TECHNICAL ASSISTANCE EDUCATION & TRAINING FUNDING PROJECTS

FUNDING

## Energy Development Assistance Tool

Home > Funding > Energy Development Assistance Tool

The Energy Development Assistance tool provides information for Tribes about federal grant, loan, and technical assistance programs available from more than 10 federal agencies to support energy development and deployment in Indian Country and Alaska Native villages.

Sort information by type of assistance, eligibility, agency or office, program name, or project phase—from strategic energy planning to any one of the five steps in the project development and finance process—or search by keyword. The tool was developed by the White House Council on Native American Affairs Energy Subgroup. If you have questions, comments, or suggestions, contact us.

For upcoming deadlines, see the Funding page.

Home > Funding > Current Funding Opportunities

Federal agencies, including the U.S. Department of Energy (DOE) Office of Indian Energy, provide grant, loan, and technical assistance programs to support tribal energy projects. Find information about the Office of Indian Energy's past funding opportunities.

## Current Funding Opportunities

CLOSE DATE	ORGANIZATION	OPPORTUNITY
12/31/2018	USDA	<p><b>Solid Waste Management Grant Program</b></p> <p>The Solid Waste Management (SWM) Grant Program has been established to assist communities through free technical assistance and/or training provided by the grant recipients. Qualified organizations will receive SWM grant funds to reduce or eliminate pollution of water resources in rural areas, and improve planning and management of solid waste sites in rural areas.</p> <p>Funds may be used to:</p> <ul style="list-style-type: none"> <li>Evaluate current landfill conditions to determine threats to water resources in rural areas</li> <li>Provide technical assistance and/or training to enhance operator skills in the maintenance and operation of active landfills in rural areas</li> <li>Provide technical assistance and/or training to help associations reduce the solid waste stream</li> <li>Provide technical assistance and/or training for operators of landfills in rural areas which are closed or will be closed in the near future with the development/implementation of closure plans, future land use plans, safety and maintenance planning, and closure scheduling within permit requirements.</li> </ul> <p>Eligible entities include state and local governments, and federally recognized tribes.</p>
1/7/2019	HUD	<p><b>Community Development Block Grant Program for Indian Tribes and Alaska Native Villages</b></p> <p>The U.S. Department of Housing and Urban Development's (HUD) Community Development Block Grant (CDBG) Program provides annual grants on a formula basis to states, cities, and counties to develop viable urban communities by providing decent housing and a suitable living environment, and by expanding economic opportunities, principally for low- and moderate-income persons.</p> <p>Eligible entities include Native American tribal organizations (other than Federally recognized tribal governments) and Native American tribal governments (Federally recognized).</p>
1/23/2019	USDA	<p><b>2019 Wood Innovations Program Request for Proposals</b></p> <p>USDA's U.S. Forest Service requests proposals to substantially expand and accelerate wood energy and wood products markets throughout the United States to support forest management needs on National Forest System and other forest lands.</p> <p>This request for proposals focuses on the following priorities to:</p> <ul style="list-style-type: none"> <li>Reduce hazardous fuels and improve forest health on National Forest System and other forest lands.</li> <li>Reduce costs of forest management on all land types.</li> <li>Promote economic and environmental health of communities.</li> </ul>

Showing 1 to 10 of 63 entries

ELIGIBILITY	PHASE
<ul style="list-style-type: none"> <li>Indian Tribes</li> <li>Alaska Native Villages</li> <li>State</li> <li>Local</li> <li>Other</li> </ul>	<ul style="list-style-type: none"> <li>Project Development</li> <li>Project Implementation</li> </ul>

# Technical Assistance

The goal of technical assistance is to **address a specific challenge or fulfill a need that is essential** to a current project's successful implementation.

The intended result of this technical assistance is a **tangible product or specific deliverable** designed to help move a project forward.

<http://energy.gov/indianenergy>

“This is government money well spent. This assistance is **helping our people afford to live in the village**. Thank you!”

## Types of Technical Assistance

Technical Analysis



Financial Analysis



Strategic Energy Planning

# Technical Assistance Types

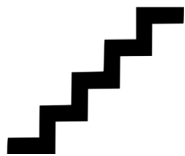
## Technical Analysis

Assistance in technical analysis generally involves analysis and modeling, expert review, transmission and/or utility assessment, market access, and energy efficiency reviews. This assistance is intended to address a specific project needs and result in a tangible product or deliverable to move a specific project forward.



## Financial Analysis

Financial analysis assistance is intended for decision makers in the early stages of energy development, including economic or market analysis. This assistance may include modeling for payback periods, net present value (NPV), and levelized cost of energy (LCOE).



## Strategic Energy Planning

Assistance in strategic planning may provide an initial resource assessment, energy options analyses, and development of a viable roadmap for development. This assistance typically includes an on-site workshop facilitated by tribal energy expert(s) to assist tribal leaders, elders and staff develop an energy plan.

## Strategic Energy Planning



# Resources

## Information Resources

### – Energy Resource Library

Provides links to helpful resources for tribes on energy project development and financing on tribal lands. The library includes links to topically relevant publications, websites, videos, and more.

### – Curriculum Foundational and Advanced Courses

Educational webinars on strategic energy planning, project development, resources technologies, and advance concepts such as business structures and financing

## Workshops & Webinars

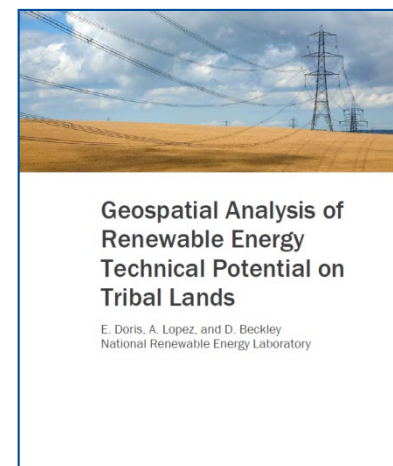
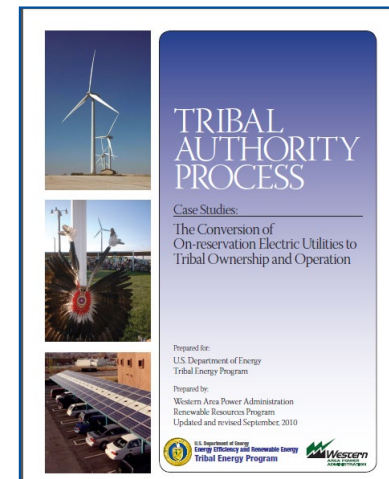
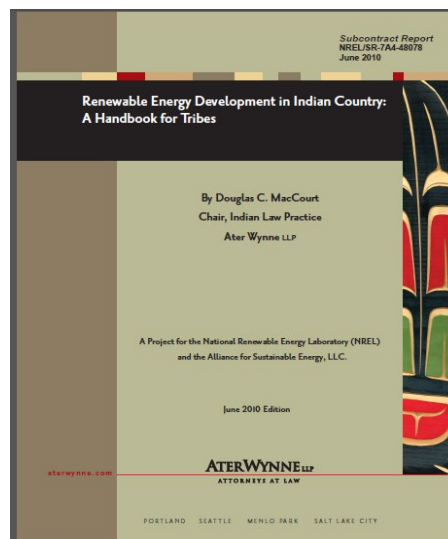
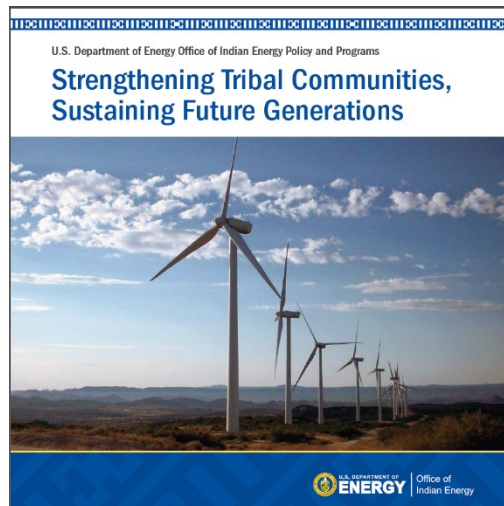
### – Monthly Webinars

Monthly webinars provide foundational information, resources and case studies

### – Periodic Workshops

Workshop on specific topics

<http://energy.gov/indianenergy>



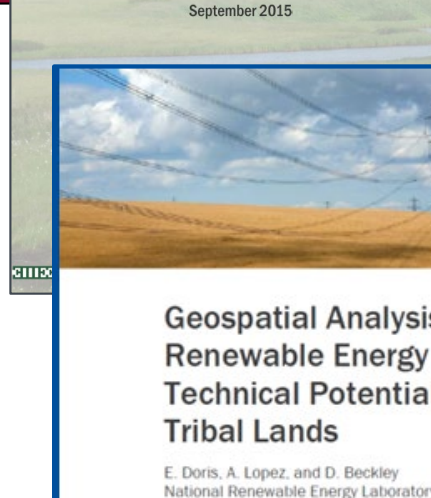
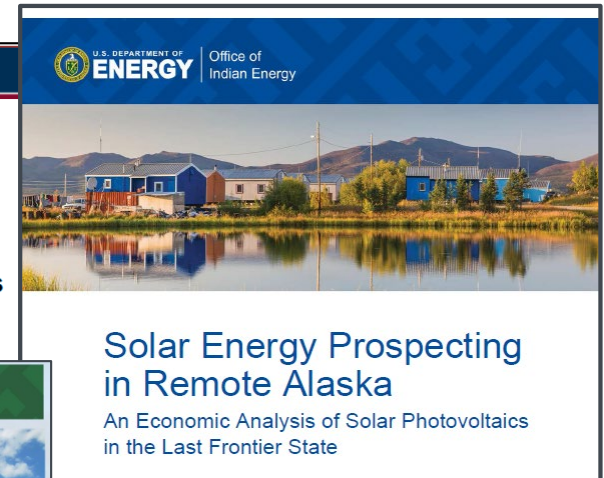
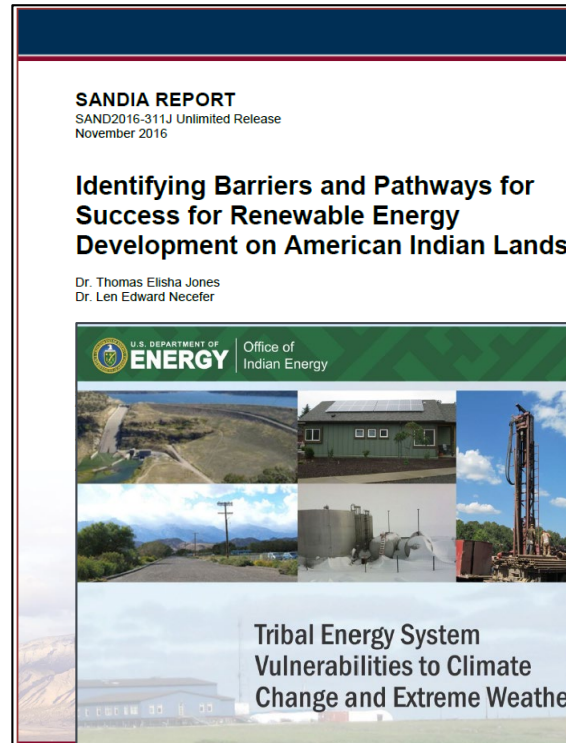


# Resources

## Research

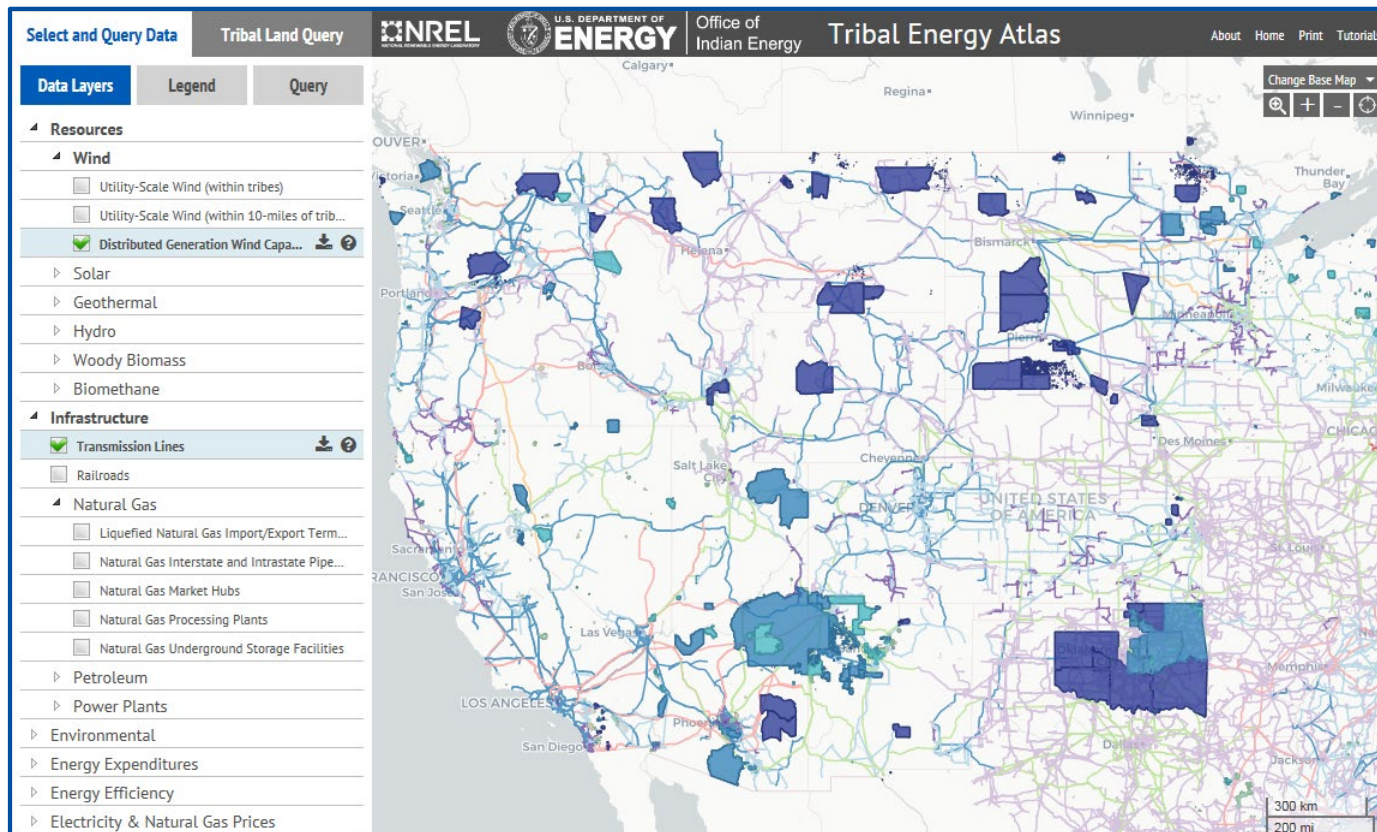
- Identifying Barriers and Pathways for Renewable Energy Development on American Indian Lands
- Solar Energy Prospecting in Remote Alaska (2016)
- Tribal Energy System Vulnerabilities to Climate Change and Extreme Weather (2015)
- Venetie, Alaska Energy Assessment (2013)
- Geospatial Analysis of Renewable Energy Technical Potential on Tribal Lands (2013)
- Financing Opportunities for Renewable Energy Development in Alaska (2013)

**Posted on the Energy Resource Library**



# Tribal Energy Atlas

First-of-its-kind interactive geospatial application that enables tribes to conduct their own analyses of installed energy projects and resource potential on tribal lands.



To access, see the Indian Energy website at [www.energy.gov/indianenergy](http://www.energy.gov/indianenergy)



# Tribal Energy Successes

**Seneca Nation of Indians (NY)** installation of 1.5 MW turbine (April 2017)



**Picuris Pueblo (NM)** completion of the 1 MW solar photovoltaic system (October 2017)



# Tribal Energy Successes

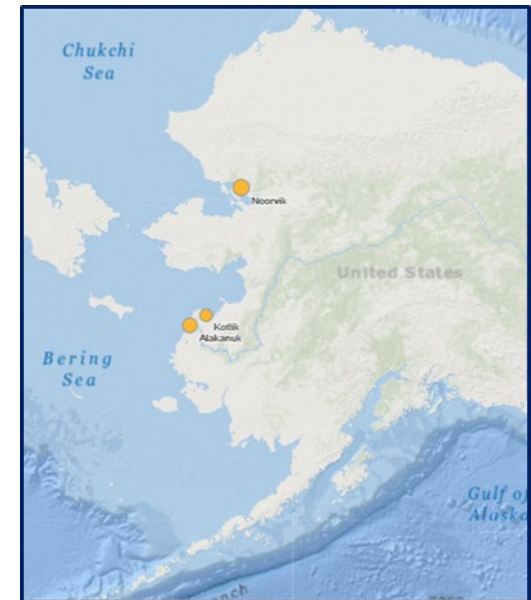


Selawik, Alaska

**Alaska Native Tribal Health Consortium (AK)** sanitation energy efficiency retrofits for Alakanuk, Kotlik and Noorvik saving over \$200,000 annually (September 2017)



**Alaska Native Tribal Health Consortium (AK)** upgraded sanitation facilities in Selawik reducing expenses by 32%, or about \$217,227 annually (2016)



# Tribal Energy Successes



The **Pala Band of Mission Indians (CA)** installed a 91 kW solar system on their Fire Station which will save \$52,000 each year or \$1.3 million over the life of the system (May 2016)



The **Spokane Tribe's (WA)** Children of the Sun Solar Initiative (COSSI) will add 650 kilowatts (kW) of solar capacity to tribal buildings and save the community an estimated \$2.8 million over the next 30 years (June 2019)



# Tribal Energy Successes



**Yukon River Inter-Tribal Watershed Council (AK)** installed energy efficiency measures for the Nunamiut people of Anaktuvuk Pass to reduce energy use by 34%



**Chaninik Wind Group (AK)**  
Thermal heating using wind energy (November 2012)



The **Gwichyaa Zhee Gwich'in Tribal Government (AK)** installed a 18 kW solar system on the Tribal Office to save \$11,338 annually (January 2016)

# Tribal Energy Successes



Huslia Tribal Council's (AK) Biomass Project (2018)



Future Site of **Hughes** Solar PV Array (AK)



Oct 30<sup>th</sup> 2018 **Hughes**, AK North of the Arctic Circle (2018)



# Tribal Energy Successes



The **Bishop Paiute Tribe (CA)** Residential Solar Program with two grants from DOE will install 178 kW on 56 homes (April 2017)

**Soboba Band of Luiseño Indians (CA)**  
1 MW solar installation (July 2016)



# Tribal Energy Successes

**Northway Village (AK)** “Resilient and sustainable through Energy Efficiency and Solar PV Power (2018)





# Tribal Energy Successes



**Menominee Tribal Enterprise** (WI) Ribbon cutting for biomass combined heat and power system (April 2016)



**Southern Ute Indian Tribe** (CO) Construction completed on the 1.3 MW Oxford Solar Project (June 2017).



**Rosebud Sioux Tribe** (SD) installed a solar system on low-income home (August 2016)



# Tribal Energy Successes

**NANA Regional Corp. Solar Project**  
(Buckland, Deering, and Kotzebue, AK (2018))



Buckland, AK



# Tribal Energy Successes



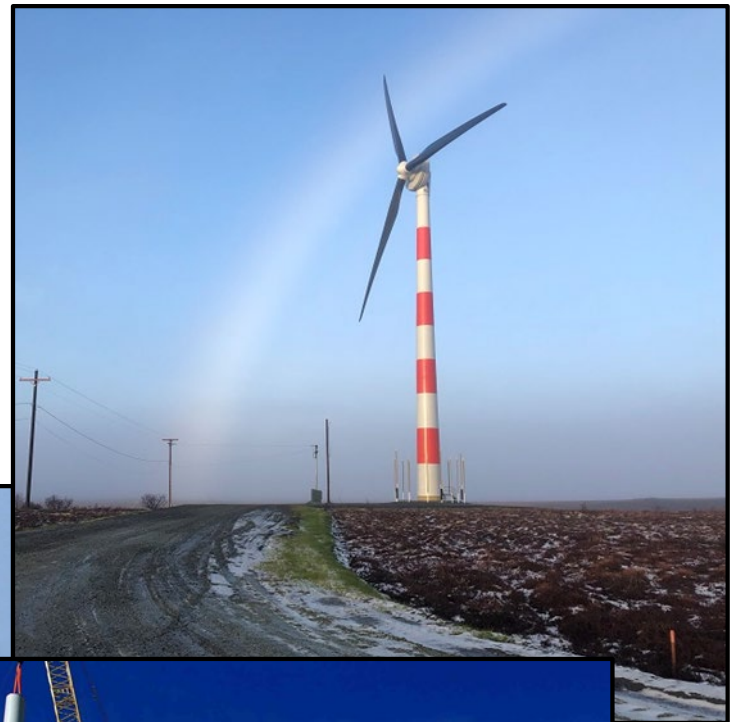
**Council Of Athabascan Tribal Governments and Gwitchyaa Zhee Corporation (AK)** Combined Heat and Powerhouse (below) and the Old Power Plant (top) (December 2017)

**Oneida Nation (WI)** installed 800 kilowatts of solar photovoltaic for 6 buildings (November 2017)





# Tribal Energy Successes



**Alaska Village Electric Cooperative, Inc. (AVEC) and Bethel Native Corporation's (BNC) "Bethel Wind Energy Construction Project"** to benefit the communities of Bethel and Oscarville, AK (September 2018)



# Assisting Tribes Achieve Their Energy Vision



Clockwise from top right: **Nunamiut people** of Anaktuvuk Pass (AK); **Assiniboine & Sioux Tribes** (MT); **Picuris Pueblo** (NM); **Tonto Apache Tribe** (AZ); **Chaninik Wind Group** (AK); **Assiniboine & Sioux Tribes** (MT); and in the center, **Pueblo of Laguna** (NM).



# Closing

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# CDFA Federal Financing Webinar Series: Resources for Resilient Infrastructure from the DOE

## Panelist

**Thank you**

for joining the conversation today. Send us your questions and comments!



**Kevin Daehnke**

President  
Center for Strategic Policy Innovation

See all of CDFA's resources online at [www.cdfa.net/resources](http://www.cdfa.net/resources)



## CDFA Federal Financing Webinar Series: Resources for Resilient Infrastructure from the DOE

### **House Select Committee on the Climate Crisis – June 2020 Report**

- Key Point: Improve Planning and Preparedness for Electric Grid Resilience
  - Building Block: Develop Federal Resilience Standards for Electricity Infrastructure
  - Building Block: Help States Harden Physical Grid Infrastructure and Improve Maintenance to Make the Grid More Resilient to Climate Impacts
  - Building Block: Develop and Demonstrate Technologies and Tools to Improve Grid Resilience
  - Building Block: Deploy Advanced Grid Technologies to Quickly Identify and Resolve Malfunctions in the Power System
  - Building Block: Establish a Strategic Transformer Reserve

**Thank you**  
for joining the  
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today. Send us  
your questions  
and comments!



## CDFA Federal Financing Webinar Series: Resources for Resilient Infrastructure from the DOE

### **House Select Committee on the Climate Crisis – June 2020 Report**

- Key Point: Expand Deployment of Distributed Energy Resources
  - Building Block: Provide Financial Incentives to Help Communities Deploy Distributed Energy Resources
  - Building Block: Direct Utilities to Consider Deploying Non-Wires Solutions
  - Building Block: Establish a Voluntary National Standard to Permit and Inspect Distributed Energy Resources
  - Building Block: Develop Analytical Tools to Help Deploy Distributed Energy Resources
  - Building Block: Eliminate Barriers to the Integration of Distributed Energy Resources in Wholesale Power Markets
  - Building Block: Allow Communities to Invest Federal Disaster Aid Funds in Clean Distributed Energy Resources

**Thank you**

for joining the conversation today. Send us your questions and comments!

# THE CLEAN GROWTH INCUBATOR™ BUILDOUT PLATFORM

*An Accelerator for a City-by-City, Nationwide  
Buildout of a Clean Energy Economy*

Spearheaded by the *Center for Strategic Policy Innovation* and the *Laboratory for Energy And Power Solutions (LEAPS)* at Arizona State University, for mid-sized cities, counties, and impacted communities

## JOIN US IN OCTOBER FOR THE NATIONWIDE ROLL-OUT EVENT

### About the *Clean Growth Incubator* Platform

- A high-level, collaborative nationwide effort designed to kick-start significant economic development and job creation by unleashing the untapped economic potential of clean renewable energy and smart grid infrastructure
- Provides a 100-page step-by-step, sophisticated urban planning Template for the development of truly “shovel ready” - and readily financeable - clean energy and related projects in mid-sized and impacted communities across America

### The Comprehensive *Clean Growth Incubator* Buildout Platform comes complete with:



Solar PV Microgrids and other distributed energy/resiliency strategies



Innovative bond and social impact finance techniques



Targeted webinar training sessions and linkages to the best resources available in the non-profit and government support arenas



Time-tested “business incubation” urban planning methods

### COME JOIN US ON THIS JOURNEY

We are building a broad-based, wide-ranging Consortium of non-profit philanthropic and assistance-based organizations, federal and state government agencies, municipal finance and local government trade groups, and industry.

**Become part of our 8-month Webinar-enhanced  
Clean Growth Incubator Training Platform**

*In partnership with*

**ASU** Arizona State  
University





## CDFA Federal Financing Webinar Series: Resources for Resilient Infrastructure from the DOE

# Questions?

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# CDFA Federal Financing Webinar Series: Resources for Resilient Infrastructure from the DOE

## Upcoming Events



## Intro Infrastructure Finance WebCourse

*In Partnership with Frost Brown Todd and FBT Project Finance Advisors*

Register >>>

September 23-24, 2020  
12:00 - 5:00 PM Eastern

**Thank you**

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conversation  
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and comments!

### **Intro Infrastructure Finance WebCourse**

September 23-24, 2020 | 12:00 – 5:00 PM Eastern

**Register online at [www.cdfa.net](http://www.cdfa.net)**



# CDFA Federal Financing Webinar Series: Resources for Resilient Infrastructure from the DOE

## Upcoming Events

### **CDFA // BNY Mellon Development Finance Webcast Series: Understanding The Municipal Liquidity Facility**

September 15, 2020 | 1:00 PM Eastern

### **CDFA-Bricker PACE Webinar Series: PACE Program Capitalization**

September 22, 2020 | 11:00 AM Eastern

### **CDFA Food Systems Finance Webinar Series: Financing Food Systems Entrepreneurs**

September 29, 2020 | 2:00 PM Eastern

### **CDFA-PFM Capital Markets Webinar Series: Pricing Private Activity Bonds in Complex Capital Stacks**

October 8, 2020 | 2:00 PM Eastern

**Register online at [www.cdfanet](http://www.cdfanet)**

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and comments!



# CDFA Federal Financing Webinar Series: Resources for Resilient Infrastructure from the DOE

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